



1

SEQUENCE LISTING

<110> Cornell-Bell, Ann H.  
Pemberton, Karen E.  
Temple Jr., Davis L.  
Layer, Richard T.  
McCabe, R. Tyler  
Jones, Robert M.  
Cognetix, Inc.

<120> Uses of Kappa-Conotoxin PVIIA

<130> 2314-268

<140> US 10/627,685  
<141> 2003-07-28

<150> US 09/666,837  
<151> 2000-09-21

<150> US 60/219,438  
<151> 2000-07-20

<150> US 60/155,135  
<151> 1999-09-22

<160> 26

<170> PatentIn Ver. 2.0

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<212> PRT  
<213> Conus purpurascens

<220>  
<221> PEPTIDE  
<222> (1)..(27)  
<223> Xaa at residue 2, 7, 18, 19, 22 and 25 may be Arg,  
homoarginine, ornithine, Lys, N-methyl-Lys,  
N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any  
synthetic basic amino acid, His or halo-His; Xaa at

<220>  
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<222> (1)..(27)  
<223> residue 4 may be Pro or Hyp; Xaa at residue 9 and  
23 may be Phe,Tyr, meta-Tyr, ortho-Tyr, nor-Tyr,  
mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr,  
O-phospho-Tyr, nitro-Tyr, Trp (D or L), neo-Trp,

<220>  
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<222> (1)..(27)  
<223> halo-Trp (D or L) or any synthetic aromatic amino  
acid; Xaa at residue 11 is His or halo-His

<400> 1  
Cys Xaa Ile Xaa Asn Gln Xaa Cys Xaa Gln Xaa Leu Asp Asp Cys Cys  
1 5 10 15  
Ser Xaa Xaa Cys Asn Xaa Xaa Asn Xaa Cys Val  
20 25

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<220>  
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 <223> Xaa is Hyp

<400> 2  
 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
           1                  5                  10                  15

Ser Ala Lys Cys Asn Arg Phe Asn Lys Cys Val  
                   20                  25

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<400> 3  
 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
           1                  5                  10                  15

Ser Arg Lys Cys Asn Ala Phe Asn Lys Cys Val  
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<400> 4  
 Cys Arg Ala Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
           1                  5                  10                  15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                   20                  25

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<400> 5  
 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
           1                  5                  10                  15

Ser Arg Ala Cys Asn Arg Phe Asn Lys Cys Val  
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 Cys Ala Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
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Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                   20                  25

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           1                  5                  10                  15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                   20                  25

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<400> 8  
 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
           1                  5                  10                  15

Ser Arg Lys Cys Asn Arg Phe Asn Ala Cys Val  
                   20                  25

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 <223> Xaa is Hyp

<400> 9  
 Cys Lys Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
     1                    5                    10                    15  
 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                     20                    25

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<400> 10  
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 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                     20                    25

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 <223> Xaa is Hyp

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     1                    5                    10                    15  
 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                     20                    25

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Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                   20                  25

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<400> 13  
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   1                  5                  10                  15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                   20                  25

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 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln Ala Leu Asp Asp Cys Cys  
   1                  5                  10                  15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                   20                  25

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 <223> Xaa is Hyp

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 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Ala Cys Cys  
   1                  5                  10                  15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                   20                  25

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 <223> Xaa is Hyp

<400> 16  
 Cys Arg Ile Xaa Asn Ala Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
           1                  5                  10                  15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                   20                  25

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<400> 17  
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           1                  5                  10                  15

Ser Arg Lys Cys Ala Arg Phe Asn Lys Cys Val  
                   20                  25

<210> 18  
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<400> 18  
 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
           1                  5                  10                  15

Ala Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                   20                  25

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 <222> (1)..(27)  
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<400> 19  
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           1                  5                  10                  15

Ser Arg Lys Cys Asn Arg Phe Ala Lys Cys Val  
                   20                  25

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<220>  
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 <222> (1)..(27)  
 <223> Xaa is Hyp

<400> 20  
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           1                  5                  10                  15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                   20                  25

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           1                  5                  10                  15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                   20                  25

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 <223> Xaa is Hyp

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Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                   20                  25

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&lt;400&gt; 23

Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
 1                      5                      10                      15  
 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Ala  
                     20                      25

&lt;210&gt; 24

&lt;211&gt; 27

&lt;212&gt; PRT

&lt;213&gt; Conus purpurascens

&lt;400&gt; 24

Cys Arg Ile Ala Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
 1                      5                      10                      15  
 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                     20                      25

&lt;210&gt; 25

&lt;211&gt; 27

&lt;212&gt; PRT

&lt;213&gt; Conus purpurascens

&lt;220&gt;

&lt;221&gt; PEPTIDE

&lt;222&gt; (1)..(27)

&lt;223&gt; Xaa is Hyp

&lt;400&gt; 25

Cys Arg Ile Xaa Ala Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
 1                      5                      10                      15  
 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                     20                      25

&lt;210&gt; 26

&lt;211&gt; 27

&lt;212&gt; PRT

&lt;213&gt; Conus purpurascens

&lt;220&gt;

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&lt;222&gt; (1)..(27)

&lt;223&gt; Xaa is Hyp

&lt;400&gt; 26

Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
 1                      5                      10                      15  
 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
                     20                      25